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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
CASCA, FRED A	

ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/733,856	HAYEM ET AL.	
	Examiner	Art Unit	
	FRED A. CASCA	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 March 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-43* is/are rejected.

7)☒ Claim(s) *1-43* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to applicant's amendment filed on March 30, 2010. Claims 1-43 are still pending in the present application. **This Action is made FINAL.**

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 6, 7, 13, 16, 25, 26 32, 36 41 and 42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 6, 7, 13, 16, 25, 32, 36 41 and 42 recite the limitation "additional timer value". There is insufficient explanation of how the additional timer value pertains to the second wireless communication network. There is no mention of "additional timer value" in the specification, let alone any explanation of how the "additional timer value" pertains to the second wireless communication network.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-5, 8-12, 14, 20-24 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neumann et al (U.S. Pub. No. 2002/0141441 A1), in view of Jarvis (US 5,918,040).

Referring to claim 1, Neumann discloses a multi-mode wireless communication device (abstract, and paragraph 4), comprising a host baseband processor configured to operate in accordance with a first wireless communications protocol of a first wireless communications system (figures 2-8B, paragraphs 19-21, "first and second baseband processors", "GSM","TDMA"),

and a baseband co-processor configured to operate in accordance with a second wireless communications protocol of a second wireless communications system (figures 2-8B, paragraphs 19-21, 38, 34, 30, 25, "first and second baseband processors", "GSM","TDMA").

Neumann does not specifically disclose the host baseband processor enabling timing synchronization between the first and second wireless communication systems on the basis of timing information transferred to the host baseband processor from the baseband co-processor as claimed.

Jarvis discloses a processor enabling timing synchronization between two network systems on the basis of timing information sent from another processor (Figures 1-5b, abstract, col. 2, lines 7-21 and 45-65, col. 3, and lines 35-67).

It would have been obvious to one of the ordinary skill in the art the time of invention to modify the device of Neumann as claimed by incorporating the teachings of Jarvis, for the purpose of providing a reliable and efficient communication system.

Referring to claim 2, the combinations of Neumann/Jarvis disclose the device of claim 1.

Neumann does not disclose the host baseband processor comprising circuitry for issuing, from the host baseband processor, a timer capture interrupt to the baseband co-processor during a predetermined timer phase of said first wireless communication system as claimed.

Jarvis discloses a processor having circuitry for issuing a timer capture interrupt to the another processor during a predetermined timer phase (Figures 1-5b, abstract, col. 2, lines 7-21 and 45-65, col. 3, and lines 35-67).

It would have been obvious to one of the ordinary skill in the art the time of invention to modify the device of Neumann as claimed by incorporating the teachings of Jarvis, for the purpose of providing a reliable and efficient communication system.

Referring to claim 3, the combinations of Neumann/Jarvis disclose the device of claim 2, and further disclose said baseband co-processor is configured to provide at least one timer value pertinent to a timing state of said second wireless communications system to said host baseband processor in response to issuance of said timer capture interrupt (Jarvis, Figures 2-5b and col. 3, lines 59-63, col. 4, lines 1-44, col. 5, lines 1-16, "master M issues to the slave S, a data packet containing a synchronization request and its current time value M_0", "S_0"), said host baseband processor enables determining of a timing difference between said first and second wireless communication systems based upon said predetermined timer phase and said at least one timer value (Jarvis, Figures 2-5b, col. 4, lines 1-45).

It would have been obvious to one of the ordinary skill in the art the time of invention to modify the device of Neumann as claimed by incorporating the teachings of Jarvis, for the purpose of providing a reliable and efficient communication system.

Referring to claim 4, the combination of Neumann/Jarvis disclose the multi-mode communications device of claim 1, and further disclose the baseband processor comprising circuitry for reading a current value of at least one timer maintained by baseband co-processor

consistent with said second wireless communications protocol (Jarvis, Figures 1-5b, abstract, col. 2, lines 7-21 and 45-65, col. 3, and lines 35-67).

Referring to claim 5, the combination of Neumann/Jarvis disclose the device of claim 1, and further disclose host baseband processor further includes a higher-layer processing module and a modem (inherent) for interfacing with said first wireless communication system, said higher-layer processing module being operatively coupled to said modem and to a baseband interface of said baseband co-processor (Neumann, figures 2-8B, paragraphs 20-21, "master processor controls a variety of shared functions … for example … "display, keypad", "GSM master processor controls audio input/output").

Referring to claim 8, the combination of Neumann/Jarvis disclose the device of claim 1, and further disclose host baseband processor includes a higher-layer processor configured to effect higher-layer processing of information processed by said baseband co-processor (Neumann, paragraphs 20-21).

Referring to claim 9, claim 9 defines a timing synchronization method reciting features analogous to the features of the device of claim 1 (as rejected above). Thus, the combinations of Neumann/Jarvis disclose all elements of claim 9 (please see the rejection of claim 1 above).

Referring to claim 10, claim 10 defines a method reciting features analogous to the features of the device of claim 2 (as rejected above). Thus, the combinations of Neumann/Jarvis disclose all elements of claims 10 (please see the rejection of claim 2 above).

Referring to claim 11, claim 11 defines a method reciting features analogous to the features of the device of claim 3 (as rejected above). Thus, the combinations of Neumann/Jarvis disclose all elements of claims 11 (please see the rejection of claim 3 above).

Referring to claim 12, claim 12 defines a method reciting features analogous to the features of the device of claim 4 (as rejected above). Thus, the combinations of Neumann/Jarvis disclose all elements of claim 12 (please see the rejection of claim 4 above).

Referring to claim 14, claim 14 defines a method reciting features analogous to the features of the device of claim 8 (as rejected above). Thus, the combinations of Neumann/Jarvis disclose all elements of claim 14 (please see the rejection of claim 8 above).

Referring to claim 20, claim 20 defines a multi-mode wireless communication device reciting features analogous to the features of the device of claim 1 (as rejected above). Thus, the combinations of Neumann/Jarvis disclose all elements of claims 20 (please see the rejection of claim 1 above).

Referring to claim 21, claim 21 defines a multi-mode wireless communication device reciting features analogous to the features of the device of claim 2 (as rejected above). Thus, the combinations of Neumann/Jarvis disclose all elements of claims 21 (please see the rejection of claim 2 above).

Referring to claim 22, claim 22 defines a multi-mode wireless communication device reciting features analogous to the features of the device of claim 3 (as rejected above). Thus, the combinations of Neumann/Jarvis disclose all elements of claims 22 (please see the rejection of claim 3 above).

Referring to claim 23, the combination of Neumann/Jarvis discloses the multi-mode communications device of claim 21, and further disclose wherein said one or more of: said host baseband processor, said baseband co-processor and said additional circuitry comprises circuitry for reading a current value of at least one timer consistent with said second wireless communications protocol (Jarvis, Figures 1-5b, abstract, col. 2, lines 7-21 and 45-65, col. 3, and lines 35-67).

Referring to claims 24 and 27; claims 24 and 27 define a device reciting features analogous to the features of the device of claims 5 and 8 (as rejected above). Thus, the combinations of Neumann/Jarvis disclose all elements of claims 24 and 27 (please see the rejection of claims 5 and 8 above).

6. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neumann et al (U.S. Pub. No. 2002/0141441 A1), in view of Jarvis (US 5,918,040) and further in view of Russ (US 6,219,624 B1).

Referring to claim 15, Neumann discloses a method for wireless communication (Abstract, figures 2-8B), the method comprising:

a multi-mode communication device (abstract, and paragraph 4, "dual mode"), a first wireless communication system (figures 2-8B, paragraphs 21-24, "GSM network", "TDMA IS-136 network"), wherein said multi-mode communication device communicates via a first wireless protocol with said first wireless communication system (figures 2-8B abstract, and paragraph 4, 6, 9, 19-24, "first and second baseband processors", "GSM","TDMA" "dual mode"), and said multi-mode communication device communicates via a second wireless protocol with a second wireless communication system (figures 2-8B abstract, and paragraph 4, 6, 9, 19-24, "first and second baseband processors", "GSM","TDMA" "dual mode").

Neumann does not specifically discuss synchronization details e.g., generating a timer capture interrupt during a predetermined timing phase of a first wireless communication system, storing a timer value of at least one time pertinent to operation of the second wireless communication system in response to the timer capture interrupt; reading the timer value; and determining a timing relationship between the first and second wireless communication systems based upon the timer value in the format claimed by applicant.

Jarvis discloses generating a timer during a predetermined timing phase of a first communication system (Figures 2-5b and col. 3, lines 59-63, col. 4, lines 1-44, col. 5, lines 1-16, "master M issues to the slave S, a data packet containing a synchronization request and its current time value M_0"), storing a timer value of at least one time pertinent to operation of said second wireless communication system in response to said timer (Figures 2-5b, col. 3, lines 64-

67, col. 4, lines 1-44, col. 5, lines 1-16, "S_0"); reading said timer value (Figures 2-5b, col. 3, lines 64-67, col. 4, lines 1-44, col. 5, lines 1-16, "compares the issued master time value", note that comparing implies reading); and determining a timing relationship between said first and second wireless communication systems based upon said timer value (Figures 2-5b, col. 3, lines 64-67, col. 4, lines 1-44, col. 5, lines 1-16).

It would have been obvious to one of the ordinary skill in the art the time of invention to modify the device of Neumann as claimed by incorporating the teachings of Jarvis, for the purpose of providing a reliable and efficient communication system.

The above combination is silent on the timer being a timer capture interrupt as claimed.

However, generating a timer capture interrupt is commonly used with timing synchronization, and it is conventional in the art, as disclosed by Russ.

Russ discloses implementing timer capture interrupt in synchronizing an output timer interrupt (Col. 1, lines 45-67, "According to the present invention an input capture timer interrupt responds to the rising edge of the speed signal and is used to synchronize an output compare timer interrupt that is scheduled to occur at a fixed time interval (every 2.048 milliseconds). Each time an input capture interrupt occurs a new measurement period is started").

It would have been obvious to a person of ordinary skill in the art at the time of invention to modify the above combination for the purpose of obtaining the faster response in processing synchronization.

Referring to claim 16, the combinations of Neumann/Jarvis/Russ disclose the method of claim 15, and further disclose an additional timer value of at least one other timer pertinent to operation of the second wireless communication system in response to said timer capture interrupt; reading said additional timer value, said timing relationship being based at least in part

upon said additional timer value as claimed by applicant (Jarvis, Figures 2-5b and col. 3, lines 59-63, col. 4, lines 1-44, col. 5, lines 1-16, "M_0", "S_0", "S_1", "slave S increments its timer value to a new value S_1").

It would have been an obvious design choice to modify the method of Neumann as claimed, for the purpose of providing an efficient communication method.

Referring to claim 17, the combinations of Neumann/Jarvis/Russ disclose the method of claim 15 and further disclose one or more timers being incremented pursuant to operation of the first wireless communication system, determining a timing relationship including comparing at least one value of the one or more timers with the timer value (Jarvis, Figures 2-5b, col. 3, lines 64-67, col. 4, lines 1-44, col. 5, lines 1-16).

Referring to claim 18, the combinations of Neumann/Jarvis/Russ disclose the method of claim 15, and further disclose said first wireless communications system operates in accordance with a first wireless communications protocol and said second wireless communications system operates in accordance with a second wireless communications protocol different from said first wireless communications protocol (Neumann, abstract, and paragraphs 2-9, TDMA, GSM).

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Neumann et al (U.S. Pub. No. 2002/0141441 A1), in view of Jarvis (US 5,918,040) further in view of Russ (US 6,219,624 B1), and further in view of well known prior art (MPEP 2144.03).

Referring to claim 19, the combination of Neumann/Jarvis discloses the method of claim 18 and further discloses said first wireless communications protocol comprises GSM (Neumann, par 21 and 33).

The combination does not specifically disclose the second wireless communication protocol comprises WCDMA.

The examiner takes official notice of the fact that WCDMA networks and protocols are well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the combination as claimed for the purpose of providing a robust multimode device satisfying users subscribed to WCDMA networks.

8. Claims 6, 13 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neumann et al (U.S. Pub. No. 2002/0141441 A1), in view of Jarvis (US 5,918,040), and further in view of well known prior art (MPEP 2144.03).

Referring to claim 6, the combination of Neumann/Jarvis disclose the device of claim 3, and further disclose baseband co-processor including first and second registers adapted to store said at least one timer value and an additional timer value pertinent to said second wireless communications protocol (Jarvis, Figures 2-5b and col. 3, lines 59-63, col. 4, lines 1-44, col. 5, lines 1-16, "master M issues to the slave S, a data packet containing a synchronization request and its current time value M_0", "S_0", "S_1", "slave S increments its timer value to a new value S_1").

The combination does not specifically disclose the second wireless communication protocol comprises WCDMA.

The examiner takes official notice of the fact that WCDMA networks and protocols are well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the combination as claimed for the purpose of providing a robust multimode device satisfying users subscribed to WCDMA networks.

Referring to claims 13 and 25; claims 13 and 25 define a device reciting features analogous to the features of the device of claim 6 (as rejected above). Thus, the combinations of

Neumann/Jarvis and well-known art disclose all elements of claims 13 and 25 (please see the rejection of claim 6 above).

9. Claims 7 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neumann et al (U.S. Pub. No. 2002/0141441 A1), in view of Jarvis (US 5,918,040), further in view of well known prior art (MPEP 2144.03), and still further in view of Kawai (US 2002/0186754 A1).

Referring to claim 7, the combination of Neumann/Jarvis and well-known art disclose the multi-mode communications device of claim 6.

The combination does not specifically disclose one timer value corresponding to a slot counter and the additional timer value corresponding to a sample counter, as claimed.

Kawai discloses a slot counter for counting in synchronization with slot timing and a sample counter for counting each sample time and adjusting the count value (paragraphs 32 and 59).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the combination as claimed, for the purpose of providing a more efficient communication device.

Referring to claim 26, claim 26 defines a device reciting features analogous to the features of the device of claim 7 (as rejected above). Thus, the combinations of Neumann/Jarvis/Kawai and well known art disclose all elements of claim 26 (please see the rejection of claim 7 above).

10. Claims 28-43 are rejected for the same reasons/arguments that claims 1-27 were rejected since claims 28-43 have the same patentable subject matter as those of claims 1-27.

Response to Arguments

11. Applicant's arguments with respect to rejection of claims under 35 U.S.C. 112, first paragraph, has been considered but they are not persuasive.

Applicant refers to Figs. 10-11 and Page 19-lines 24 to page 20, line 27 of the present specification to overcome the USC 112, first paragraph rejection. The examiner asserts that the above mentioned portions of the specification fail to recite the limitation "additional timer value." The specification fails to describe how the additional timer value pertains to the second wireless communication network. There is no mention of "additional timer value" in the specification, let alone any explanation of how the "additional timer value" pertains to the second wireless communication network. A person of ordinary skill in the art would not be able to derive the specification the relationship of an additional timer value to a wireless communication network. The examiner carefully reviewed figures 10-13 and the corresponding descriptions in the specification. The examiner did not find any explanation of additional timer value pertinent to the WCDMA processor. Applicant's referral to Figures 10-13 and explanations that the "WCDMA counters" of Figure 10 and the "slot counter" and "sample counter" of figure 11 relate to the additional timer value pertinent to WCDMA processor is not persuasive. The examiner emphasizes that counters are different than timer values. Counters refer to the number of occurrences of an event while timer values refer to the value of time. Further, the specification fails to explain what role the timer value pertinent to second processor plays. The examiner further asserts that if a configuration or design for which protection is sought cannot be determined or understood due to an inadequate disclosure, then the claim, which incorporates the disclosure, fails to particularly point out and distinctly claim the subject matter applicant regards as their invention, see MPEP 1503.01-1504.04. The mere mentioning of "additional timer value" in claim 6 does not satisfy the enablement requirement because it is not clear how the additional timer value pertains to "said second wireless communication protocol." Further explanation or description of the additional time value pertaining to the second protocol is needed. Applicant's referral to Figures 10-13 does not provide the necessary description or explanation of how the additional timer value pertains to the second protocol. The applicants need to identify how a timer value could be a slot value.

Applicant's arguments with respect to rejection of under USC 103(a) have been considered but are they are not persuasive. In response to arguments that the combination of Neumann and Kransmo does not teach or suggest "Said Host Baseband Processor Enables Timing Synchronization ... On The Basis Of Timing Information Transferred To Said Host Baseband Processor From Said Baseband Co-Processor" in claim 1, the examiner respectfully disagrees and submits that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1.181,26 USPQ2d 1057 (Fed. Cir. 1993).

The combination of Neumann/Kransmo clearly teaches synchroniztion between two processor where a Host Baseband Processor Enables Timing Synchronization ... On The Basis Of Timing Information Transferred To Said Host Baseband Processor From Said Baseband Co-Processor (Kransmo, Fig. 2, col. 1, lines 41-44, 50-67, col. 2, lines 1-32, col. 4, lines 10-20, col. 4, lines 30-56, col. 5, lines 7-21, first note that the system of Kransmo clearly teaches a handoff process between a 3G network and a 2G network. The network that Kransmo's MS12 is camping on could be a 2G or a 3G (the camping network). Likewise the target network could be a 2G or a 3G network (the target network), but the two networks are the opposite of each other. Further note that Kransmo clearly explains that the two processors must synchronize in order for the handoff process to be a success. Thus, both processors much be able to synchronize, therefore both processors enable synchronization, which means that both processor must be able to synchronize in order for the synchronization process to be a success. Thus, both processors enable timing synchronization. Furthermore note that in a synchronous transmission involving a transmitter and a receiver, the transmitter and receiver's clocks must be synchronous. To establish this synchronization between the transmitter and the receiver's clocks, the transmitter sends pulses to the receiver, and the receiver uses these pulses to get in synch with the transmitter before the data transmission takes place. This transmitting of pulses is well known in art as the timing synchronization based on timing information transferred from the transmitter processor to the receiver processor (See synchronization details in William Stallings's "Data and Computer Communications", and also see "The Communication Handbook" by Jerry Gibson). In Kransmo's system, the processor for the camping network sends pulses to the processor of the target network, and based on these pulses the processor for the target network establishes

synchronization between the processors. Thus, host baseband processors enable timing synchronization on the bases of timing information transferred to the host baseband co-processor).

With regards to applicant's remarks on frame timing, note that a frame holds a block of data for transmission and still synchronization takes place based on "Timing Information Transferred", in this case timing information on a frame (block of data). In other words, synchronization still takes place based on the timing of a group of data instead of one bit of data.

With response to arguments that the examiner is relying on inherency, it is noted that the purpose of synchronization is to ensure that two communicating systems are in the same time cycle, in other words in synch with each other (please see Newton's Telecom dictionary, William Stallings's "Data and Computer Communications", and "The Communication Handbook" by Jerry Gibson). To achieve this synchronous stage, the first system transmits to the second system timing information (information about first system's time) so that the second system sets its timing information according to the first system's timing information. This timing information could be for one frame (a group of bits) or for a single bit. Thus it is inherent that Kransmo's synchronization system depends on timing information sent from one processor to the other.

In response to arguments that applicant's processors are within the same device and that Javis's processor are not within the same device, the examiner respectfully asserts that Neumann discloses a multi-mode device that has two processors within the same device (as in applicant's claim invention) where one processor is a master and the other one is a slave. Since the master processor also controls at least one function for the slave processor, there must be some kind of synchronization between the processor, otherwise they will be out of synch and they won't work together. However, since Neumann does not specifically disclose details of synchronization in the processor, the examiner relies on Jarvis which discloses synchronization details between two processors. Applicant's limitation that "wherein said host baseband processor enables timing synchronization between said first and second wireless communications systems on the basis of timing information transferred to said host baseband processor from said baseband co\-processor" is clearly disclosed in Jarvis column 3, lines 47-67, particularly line 60 and lines 64-66. Thus, the combination of Neumann/Jarvis discloses all elements of claim 1. The examiner

emphasizes that Neumann's multi-mode device performs all functions of the applicant's claimed invention and a user of the device wouldn't be able to tell the difference between Neumann's device and applicant's. A person of ordinary skill in the art would understand that applicant's additional limitations of synchronization (as disclosed by Jarvis) which are hidden from the user are fundamental operations that takes place behind the scenes within an electrical device of multiple processors, and would be able to combine the two references to obtain the claimed inventions.

With regards to arguments on page 4, lines 3-15, the examiner respectfully disagrees with the applicant. The examiner emphasizes the language of claim is subject to broad interpretation. The word, "enables" in claim 1, is very broad, and since Jarvis discloses synchronization between the processor, then both processors must be able to synchronize, thus, Jarvis clearly discloses this limitation, "host baseband processor enables timing synchronization between said first and second."

In response to applicant's arguments with reference to claim 15 that Schutte does not disclose, "generating within a multi-mode communication device, a timer capture interrupt during a predetermined timing phase of a first wireless communication system" and "Schutte does not disclose or suggest a multi-mode communication device that communicates via a first and a second wireless communication protocol", the examiner respectfully disagrees and asserts that it is the combinations of Neuman/Kransmo/Schutte that disclose the contents of claim 15, not Schutte by itself. The combo of Neuman/Kransmo discloses "a multi-mode communication device that communicates via a first and a second wireless communication protocol", see rejection of claim 1, and the concept of generating timing capture interrupts is very well known in the art and Schutte teaches it as well. Thus, the combinations Neuman/Kransmo/Schutte disclose all elements of claim 15 and the rejection of claim 15 is maintained.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this

case, both Neumann and Kransmo teach multimode communication systems requiring dual processors. Furthermore, the concept of timing capture interrupt has frequently been combined with data communicating systems especially with synchronization applications.

Conclusion

12. **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper, can be reached at (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Fred A. Casca/

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